

Work Order ID 65505

January 19, 2011 10:38:30 AM

Page 1

Item ID: D350-602-014

Accept

Setup Start

Revision ID:

Stop

Item Name: Heli-Utility-Pod, RH

Start Date: 1/19/11 Start Qty: 1.00

Cust Item ID:

Required Date: 1/21/11 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date:

Run Start

QC: Date: SPC (Y/N): Date:

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
DSI 9515	B

100		0.00							
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DOCUMENT CONTROL

DC

Memo 0.00

Document Control

Photocopy bluefile & type labels per PPPD206-602-014

CHG002

Subs

78-11-01-28

140		0.00							
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Small Fab

Small Fab

Memo 0.00

Small Fab

PULL FROM STOCK:
1 X D350-602-014 B52205 CHG001

1-Assemble as per Dwg D2694

hole locations to be changed for latches
Change seal to D2461

re-install hinge using AD62-ABS rivets *N/A*

78 11-01-27

(PK)

DART			
Dart Aerospace Ltd.			
1270 ABERDEEN ST.			
HAWKESBURY, ON, CANADA K6A 1K7			
P/N		D350-602-014	
DESC.		Heli-Utility-Pod	
LOT		B52205	
MODEL		AS350	
CHG	CHG001	STC	SH93-97
STC		STC	SR01144NY
STC		STC	
STC		STC	

MADE IN CANADA

D2729-1

W/O: 65505		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
11-01-20	140	install neoprene O seal D2461, B <u>63880</u> 1700	BT	11-01-27	1	11-01-28 GSA 042	11-01-28 S
11-01-27	140	re-locate laser mounting point for 2204-9 rubber latch on fwd + aft locations to allow for proper tension, 4.4" between both mounting points as per dwg 2694 section D-D	BT	11-01-27		11-01-28 GSA 042	11-01-28 S
11-01-27	140	use Hysol 956 B <u>116637</u> + 10% milled Fiber B <u>100859</u> to fill preholes	BT	11-01-27		11-01-28 GSA 042	11-01-28 S

Part No: D350-602-014 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 65505

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Page 2

Item ID: D350-602-014

Accept



Setup Start



Revision ID:

Stop



Item Name: Heli-Utility-Pod, RH

Start Date: 1/19/11 Start Qty: 1.00



Cust Item ID:

Required Date: 1/21/11 Req'd Qty: 1.00

Customer:

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150 QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00				(+1)			
160 Packaging Packaging	Pick Kit Memo	0.00 0.00							
170 QC Quality Control	QC6 Inspect Part Finish Memo Original Kit still in Box	0.00 0.00				(+1)			

hit original 1/21/11

Sub 1/21/11

Work Order ID 65505

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Page 3

Item ID: D350-602-014

Accept



Setup Start



Revision ID:

Stop



Item Name: Heli-Utility-Pod, RH

Start Date: 1/19/11 Start Qty: 1.00



Cust Item ID:

Required Date: 1/21/11 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

180

0.00



Packaging

Packaging

Memo

0.00

RE-PACKAGE USING NEW B/N
Identify and pack for shipping as per PPP D350-602-014
Location: _____
PPP Rev: _____

CHG002

190

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/01/31

11/01/31

Picklist Print

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Page 1

Work Order ID: 65505



Parent Item: D350-602-014



Parent Item Name: Heli-Utility-Pod, RH



Start Date: 1/19/11

Required Date: 1/21/11

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A New Issue 06-05-01 JLM
IPP Rev:B Added D3495-1 06-05-17 JLM Rev:C add
D2202-1 and D2202-5 DD 10.04.07 verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D350-602-014  Heli-Utility-Pod, RH		Manufactured	No				Each	0.0000		1			
												11-01-20	

NOTES:

1) MATERIALS:

RESIN: EPOCAST 50-A/9816,
OR DERAKANE 470-36/411/510A40

FOAM: A500 CORE CELL,
OR DIVINYCELL,
OR AIREX,
0.38 THICK (3/8 FOAM)

FIBRE: 9.7 oz 7781 WEAVE "S" GLASS (9 oz SATIN)
5 oz PLAIN WEAVE KEVLAR (5 oz KEVLAR)

2) FINISH: INSIDE = PRIME PER DART QSI 005 4.2
OUTSIDE = WHITE GELCOAT #GEL 944W005

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION: NONE

7) WEIGHT: N/A

8) LAMINATE PER DART QSI 006.
LAMINATION SCHEDULE PER THIS DRAWING.

9) PEEL PLY ALL SURFACES.

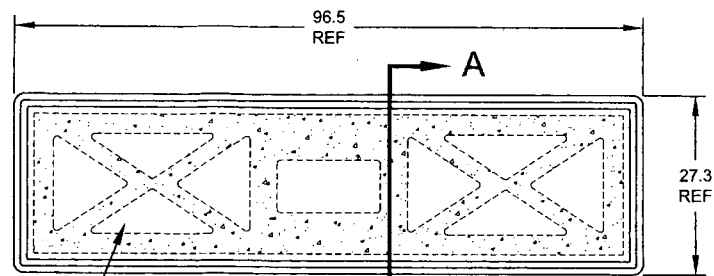
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2010-10-28


WLO 65505

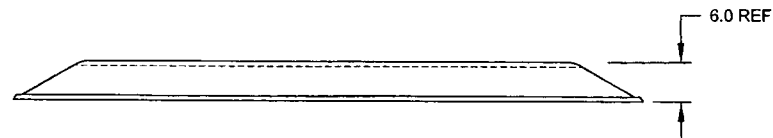
G	REFORMAT DRAWING TO CURRENT STANDARDS: D2202-101 WAS D2202-1 (ZN C5-2, A4-2); ADD 77.5 & 22.0 DIM. (ZN D4-3, C6-3); D2202-103 WAS D2202-5 (ZN C5-3, A4-3); ADD 2.00 MAX (ZN D3-4); INCORPORATED DEO 9217 & ADD D2202-5/6 ON SHEET 5 PER PAR 09-034	RF	09.10.06
F	CHANGE LAYUP, DOUBLER, NOW DRILLED	CP	01.03.14
E	ADDED SECTIONS WITH LIP DIMS	KE	99.11.11
D	MOVED DOUBLERS, REMOVED HOLES	KE	98.11.09
C	REVISED DOUBLER/HOLES LOCATIONS	KE	97.07.04
B	ADD DOUBLERS AND HOLES	-	93.10.27
A	NEW ISSUE	-	93.10.27
REV.	DESCRIPTION	BY	DATE
DESIGN	KE	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	97	DRAWING NO.	REV. G
MFG. APPR.	JM	D2202	SHEET 1 OF 5
APPROVED	107	TITLE	SCALE
DE APPR.	107	UTILITY POD LID AND BASE	NTS
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SEE
DETAIL B
A6-2

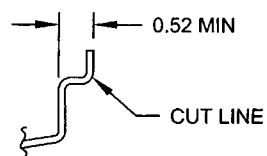
SECTION A-A C3-2



 D2202-101 FOAM CORE,
MAKE FROM 3/8" FOAM, ROUTER PER DT8024




D2202-1 LID
(MOLD DT8002)



DETAIL B
SCALE 10X D6-2

MAIN LAYUP

9oz SATIN
9oz SATIN
5oz KEVLAR
 D2202-101 FOAM CORE
5oz KEVLAR
9oz SATIN

DESIGN	KE	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	<i>90</i>	DRAWING NO.	REV. G
MFG. APPR.	JM	D2202	SHEET 2 OF 5
APPROVED	<i>11</i>	TITLE	SCALE
DE APPR.	<i>11</i>	UTILITY POD LID AND BASE	NTS
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65505

SEE
DETAIL D
B7-3

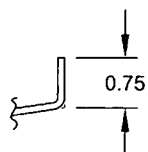
SECTION C-C C4-3

ENSURE THIS
EDGE IS STRAIGHT
WITHIN 0.060"
AFTER TRIMMING

D2202-103 FOAM CORE,
MAKE FROM 3/8" FOAM, ROUTER PER DT8559

C4-4
DETAIL E,
DOUBLER INSTALLATION

A4-4
DETAIL F,
HOLE LOCATION



DETAIL D
SCALE 10X
D7-3



D2202-3 BASE
(MOLD DT8002)

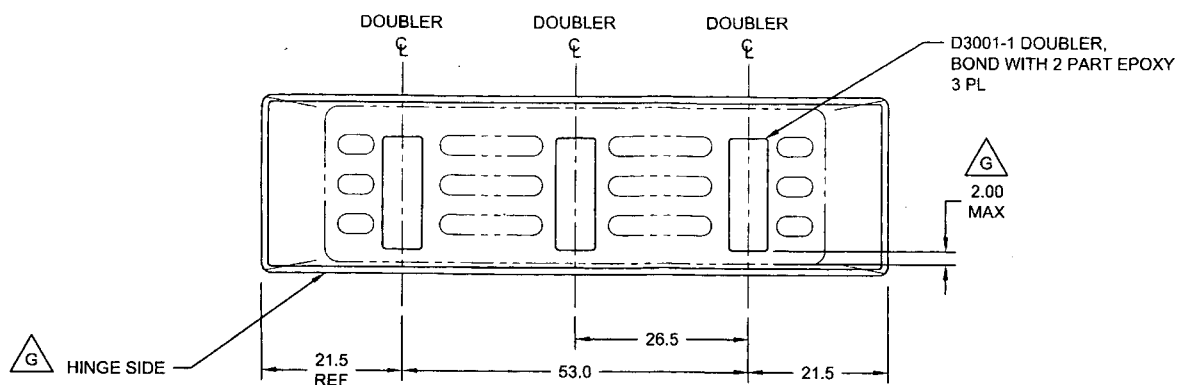
MAIN LAYUP

9oz SATIN
9oz SATIN
5oz KEVLAR
D2202-103 FOAM CORE
5oz KEVLAR
5oz KEVLAR
9oz SATIN

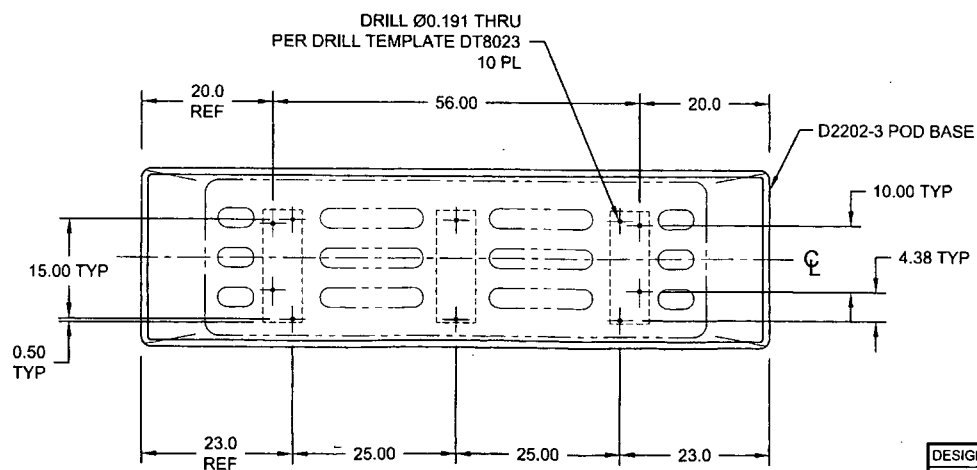
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DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	97	DRAWING NO.	REV. G
MFG. APPR.	JM	D2202	SHEET 3 OF 5
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DETAIL E: INSTALLATION OF D3001-1 DOUBLERS C3-3



DETAIL F: HOLE DRILLING
(AFTER DOUBLER INSTALLATION) C3-3

65503

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2010-10-28

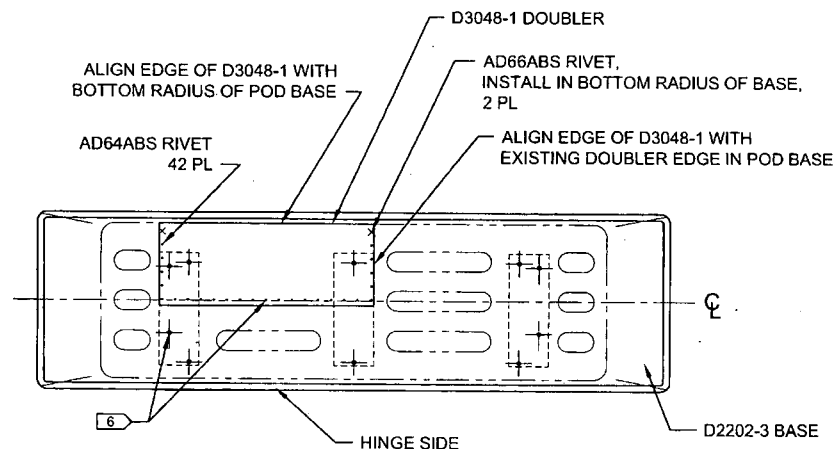
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MFG. APPR.	JM	D2202	SHEET 4 OF 5
APPROVED	JP	TITLE	SCALE
DE APPR.	JP	UTILITY POD LID AND BASE	NTS
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NOTES : TO MAKE A D2202-5/-6 BASE (FOR D350-602-013/-014) FROM A D2202-3 BASE

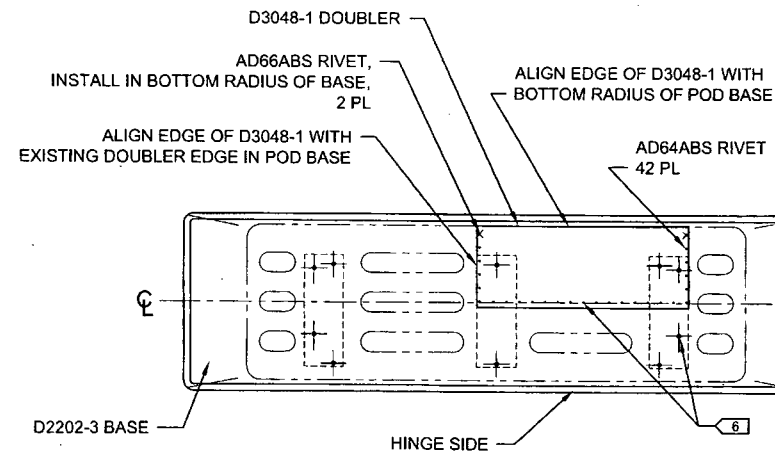
- 1) REMOVE FOAM IN AREA OF POD BASE WHERE D3048-1 DOUBLER WILL BE INSTALLED
- 2) FILL GAPS WITH 9oz SATIN AND RESIN PER DWG (APPROX. 3-4 LAYERS)
- 3) 2 LAYERS OF 9oz SATIN
- 4) BOND D3048-1 DOUBLER IN ORIENTATION SHOWN AND LET CURE
- 5) TRANSFER Ø0.125 HOLES FROM D3048-1 TO POD BASE
INSTALL DOUBLER WITH AD64ABS RIVETS (42) AND AD66ABS (2)
- 6) TRANSFER Ø0.191 HOLES FROM POD BASE TO D3048-1. SEAL HOLES WITH CYANOACRYLATE GLUE
- 7) TOUCH UP AFFECTED AREA WITH GREY PRIMER PER DWG
- 8) FILL CENTER OF THE AD RIVETS WITH RTV 732 TO SEAL

PART LIST:

QTY -5	QTY -6	PART NUMBER	DESCRIPTION
X		D2202-5	POD BASE
	X	D2202-6	POD BASE
1	1	D2202-3	BASE
1	1	D3048-1	DOUBLER
42	42	AD64ABS	RIVET
2	2	AD66ABS	RIVET
AR	AR	RTV	SEALANT



D2202-5 BASE: D3048-1 DOUBLER INSTALLATION
(MAKE FROM D2202-3 BASE)



D2202-6 BASE: D3048-1 DOUBLER INSTALLATION
(MAKE FROM D2202-3 BASE)

DESIGN	KE	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
DRAWN	RF	
CHECKED	JP	DRAWING NO. REV. G
MFG. APPR.	JM	D2202 SHEET 5 OF 5
APPROVED	JP	TITLE SCALE
DATE	09.10.06	UTILITY POD LID AND BASE NTS

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65505

Qty	Part Number	Description
X	D2694	UTILITY POD ASSEMBLY
1	D2202-1	POD LID
1	D2202-3	POD BASE
5	D2204-9	LATCH
1	D2429-041	SPRING CLIP ASSEMBLY
1	D2461-1700	NEOPRENE SEAL
5	D2528-1	BACKER PLATE
4	D2528-3	BACKER PLATE
1	D2569	HINGE
1	D3007-041	PROP ASSEMBLY
19	AN4-5A	BOLT
1	AN4-6A	BOLT
2	AN526C632R7	SCREW
21	AN960JD416	WASHER
2	AN960JD6	WASHER
2	MS21042L06	NUT (OR MS21042-06)
20	MS21042L4	NUT (OR MS21042-4)
38	AD62ABS	RIVET

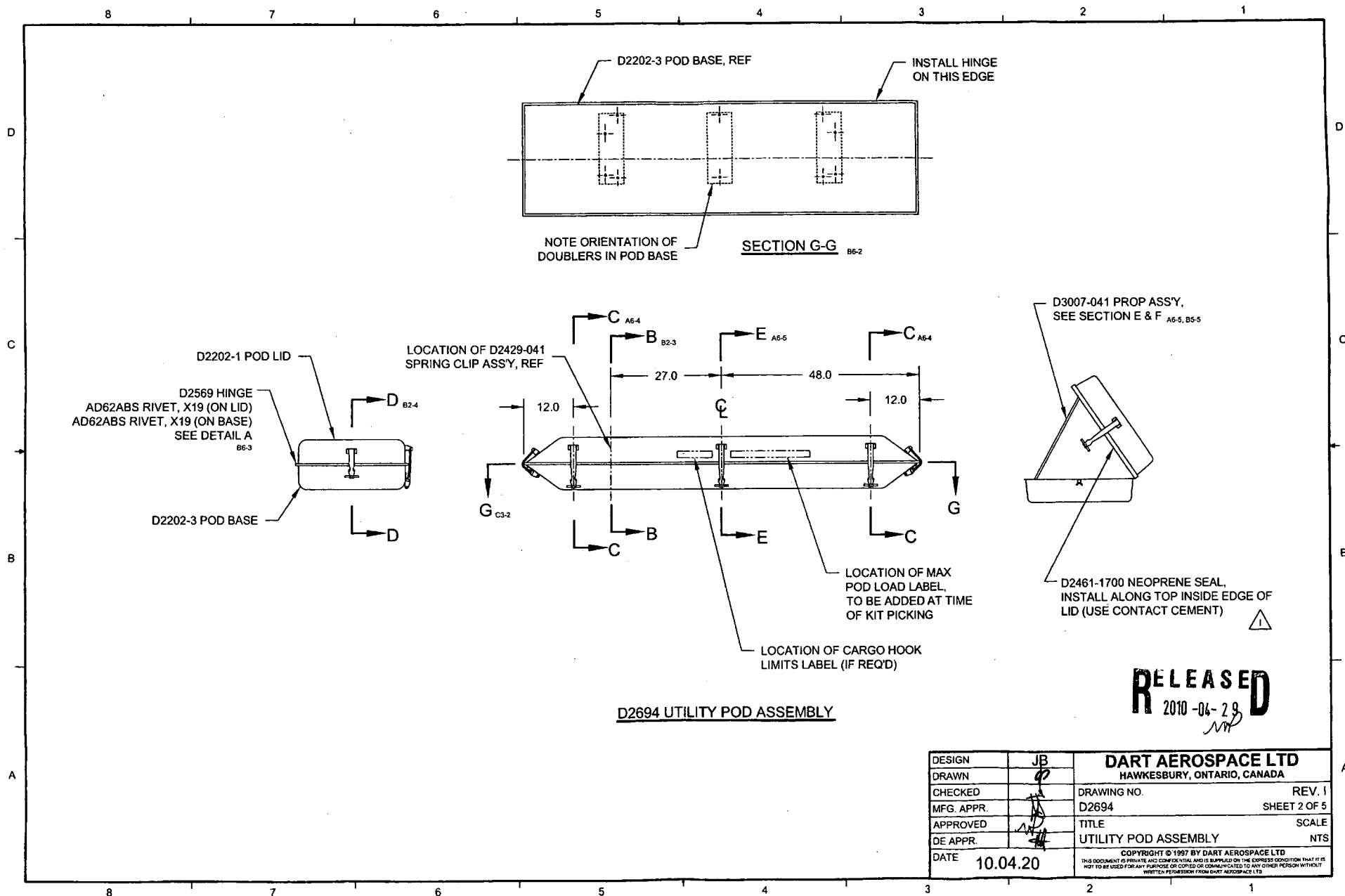
GENERAL NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: PRIME AND PAINT PER QSI 005 4.2 TO MATCH ORIGINAL FINISH
AS REQ'D TO TOUCH UP FINISH AFTER DRILLING OR ASSEMBLY
INSIDE: DUPONT HIGHBUILD PRIMER GREY 1144-S
OR DUPONT 2K-URETHANE PRIMER GREY 7704-S
OUTSIDE: DUPONT IMRON POLYURETHANE ENAMEL BASE WHITE (555U)
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 48.5 lbs
- 8) TRANSFER DRILL UNSPECIFIED HOLES FROM ATTACHING PART AS FOLLOWS: AN526C632 → DRILL Ø0.141
AN4 → DRILL Ø0.257
- 9) SEAL ALL HOLES AND EDGES OF POD WITH CYANOACRYLATE GLUE
- 10) FOR D2569 HINGE:
 - (i) INSTALL RIVET HEADS FROM OUTSIDE OF POD
 - (ii) GRIND TRAILING EDGE OF RIVET TO PERMIT HINGE TO CLOSE
 - (iii) ENSURE ALL RIVET HOLES ARE DRILLED ON THE LARGER HINGE TABS AS SHOWN IN DETAIL A

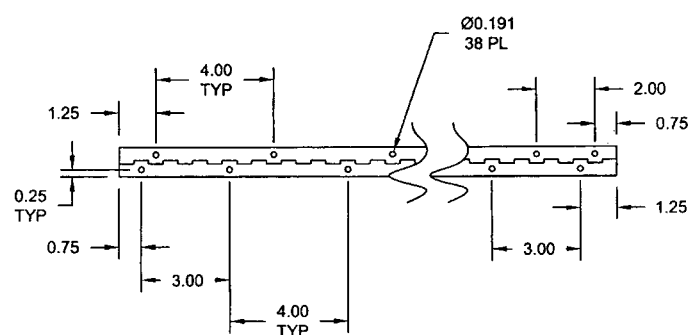
D370-602-014
352205

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2010-04-29

I	REFORMAT, D2204-9 LOC SPEC'D (B2-4,B6-4,C2-4,C6-4,B6-5,C6-5), D2461-X WAS D2462-X (D5-1,B1-2), ADD FINISH (B5-1)	CP	10.04.20
H	CHANGED RIVETS FROM AD64ABS TO AD62ABS (PAR#185)	DC	07.07.18
G	REVERT BACK TO D2204-9 LATCH	CP	01.05.08
F	REDESIGN, CHANGE LATCHES & PROP	CP	01.03.20
E	CHANGE DIMENSIONS	RF	99.12.20
D	SEAL & HINGE CHANGE (TSR A1047 & A855/A858); INCLUDED DE09119	CP	99.01.08
C	ADD DOUBLER HOLES, REMOVE FINISH	KE	98.11.12
B	CHANGE RIVET PATTERN, ADD D2429	KE	97.10.08
A	NEW ISSUE CREATED TO REPLACE D350-602-041 AND -043	KE	97.07.02
REV.	DESCRIPTION	BY	DATE
DESIGN	JB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	JP		
CHECKED	JP	DRAWING NO.	REV. I
MFG. APPR.	JP	D2694	SHEET 1 OF 5
APPROVED	JP	TITLE	SCALE
DE APPR.	JP	UTILITY POD ASSEMBLY	NTS
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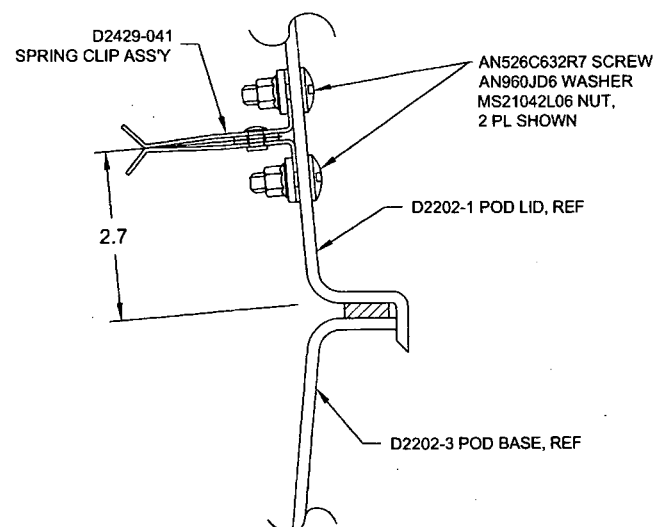


8 7 6 5 4 3 2 1



DETAIL A: HINGE
NOT TO SCALE

10
C7-2



SECTION B-B
NOT TO SCALE

C5-2

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2010-04-29
MRO

DESIGN	JB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	JP	DRAWING NO.	REV. 1
CHECKED	JA	D2694	SHEET 3 OF 5
MFG. APPR.	JS	TITLE	SCALE
APPROVED	LD	UTILITY POD ASSEMBLY	NTS
DE APPR.	LD	COPYRIGHT © 1997 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DATE	10.04.20		

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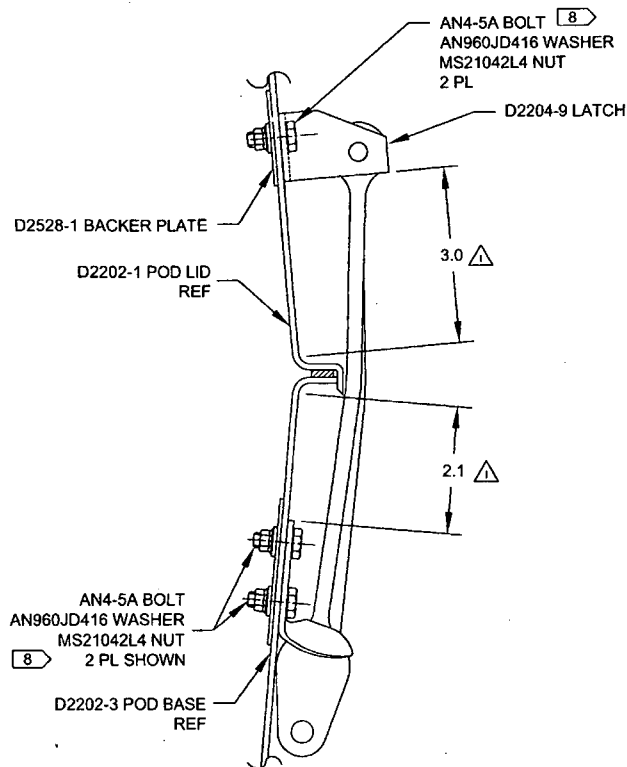
8 7 6 5 4 3 2 1

D

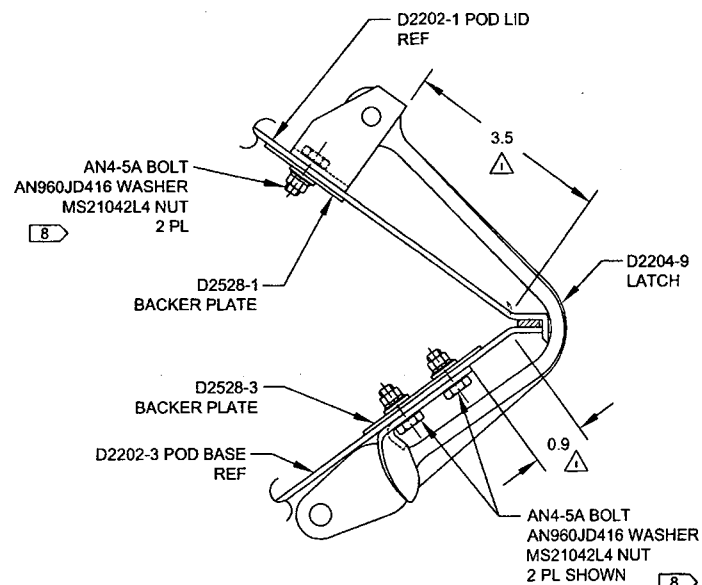
C

B

A



SECTION C-C
SCALE 10X C3-2, C5-2



SECTION D-D
SCALE 10X C6-2

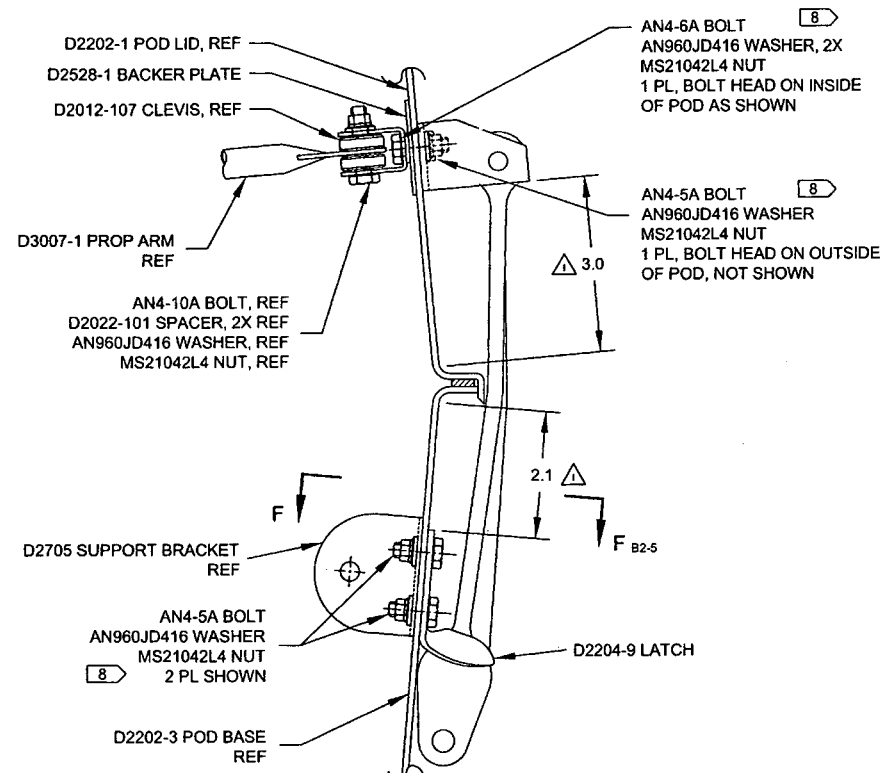
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2010-04-29
MP

DESIGN	JB	DART AEROSPACE LTD	
DRAWN	JP	HAWKESBURY, ONTARIO, CANADA	
CHECKED	JP	DRAWING NO.	REV. I
MFG. APPR.	JP	D2694	SHEET 4 OF 5
APPROVED	JP	TITLE	SCALE
DE APPR.	JP	UTILITY POD ASSEMBLY	NTS
DATE	10.04.20	COPYRIGHT © 1997 BY DART AEROSPACE LTD	
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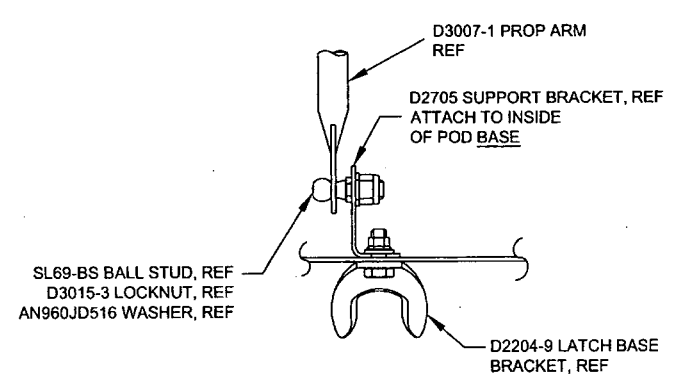
8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

D
C
B
A



SECTION E-E C4-2
SCALE 10X



SECTION F-F B5-5
D3007-041 PROP ASS'Y DETAIL
SECTION ROTATED 85° CW

RELEASED
2010-04-29
mp

DESIGN	JB	DART AEROSPACE LTD	
DRAWN	<i>JP</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>JP</i>	DRAWING NO.	REV. I
MFG. APPR.	<i>JP</i>	D2694	SHEET 5 OF 5
APPROVED	<i>MP</i>	TITLE	SCALE
DE APPR.	<i>MP</i>	UTILITY POD ASSEMBLY	NTS
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8 7 6 5 4 3 2 1